| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|---|---|---|---|---|---|---|
| S1 | 383 | amyloid beta protein | USPAT | ADJ | ON | 2004/05/06 12:33 |
| S2 | 22 | S1 with aggreg$ | USPAT | ADJ | ON | 2004/05/06 12:33 |

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FILE 'BIOSIS' ENTERED AT 13:02:04 ON 06 MAY 2004
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=> s amyloid (3a) beta (3a) (protein or peptide)
L1        15418 AMYLOID (3A) BETA (3A) (PROTEIN OR PEPTIDE)

=> s l1 (10a) aggregat?
L2          884 L1 (10A) AGGREGAT?

=> s l2 (10a) prevent?
L3           22 L2 (10A) PREVENT?

=> s l1 (10a) inhibit?
L4         1009 L1 (10A) INHIBIT?

=> s l2 (10a) inhibit?
L5           83 L2 (10A) INHIBIT?

=> s l3 or l5
L6          102 L3 OR L5

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7           80 DUP REM L6 (22 DUPLICATES REMOVED)

=> s l2 (10a) suppress?
L8            0 L2 (10A) SUPPRESS?

=> d l7 trial 1-5
'TRIAL' IS NOT A VALID FORMAT
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REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):filedefault

L7   ANSWER 1 OF 80  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
     DUPLICATE 1
AN   2004:149016  BIOSIS
DN   PREV200400152231
TI   Two types of Alzheimer's  ***beta***  -  ***amyloid***  (1-40)
       ***peptide***  membrane interactions:  ***Aggregation***
       ***preventing***  transmembrane anchoring versus accelerated surface
     fibril formation.
AU   Bokvist, Marcus; Lindstrom, Fredrick; Watts, Anthony; Grobner, Gerhard
     [Reprint Author]
CS   Department of Biophysical Chemistry, Umea University, 90187, Umea, Sweden
SO   Journal of Molecular Biology, (23 January 2004) Vol. 335, No. 4, pp.
     1039-1049. print.
     ISSN: 0022-2836 (ISSN print).
DT   Article
LA   English
ED   Entered STN: 17 Mar 2004
     Last Updated on STN: 17 Mar 2004

L7   ANSWER 2 OF 80  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:855953  CAPLUS
DN   139:363578
TI   Synthetic immunogens of .beta.-amyloid peptide for treatment of
     Alzheimer's disease
IN   St. George-Hyslop, Peter; McLauring, Joanne
PA   The Governing Council of the University of Toronto, Can.
SO   PCT Int. Appl., 92 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.         KIND  DATE           APPLICATION NO.  DATE
     ---------------    ----  --------       ---------------  --------
PI   WO 2003089460      A1    20031030       WO 2003-CA502    20030407
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
             RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
             GW, ML, MR, NE, SN, TD, TG
     US 2003232758      A1    20031218       US 2003-411544   20030410
PRAI US 2002-373914P    P     20020419
RE.CNT  4      THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7   ANSWER 3 OF 80  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:511089  CAPLUS
DN   139:79164
TI   Apomorphine inhibitors of amyloid-.beta. (A.beta.) fibril formation and
     their use in amyloidosis based disease
IN   Lashuel, Hilal A.; Callaway, David J. E.
PA   The Picower Institute for Medical Research, USA
SO   PCT Int. Appl., 57 pp.
     CODEN: PIXXD2
DT   Patent
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LA   English
FAN.CNT 1
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ---------------     ----  --------      ---------------  --------
PI   WO 2003053356       A2    20030703      WO 2002-US40660  20021220
     WO 2003053356       A3    20030912
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
PRAI US 2001-341225P     P     20011220
OS   MARPAT 139:79164

L7   ANSWER 4 OF 80  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:777396  CAPLUS
DN   139:271076
TI   Apomorphine derivatives and analogs as inhibitors of amyloid-.beta.
     (A.beta.) fibril formation and their use in amyloidosis based disease
IN   Lashuel, Hilal A.; Callaway, David J. E.
PA   USA
SO   U.S. Pat. Appl. Publ., 25 pp.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ---------------     ----  --------      ---------------  --------
PI   US 2003187011       A1    20031002      US 2002-320609   20021217
PRAI US 2001-341255P     P     20011220
OS   MARPAT 139:271076

L7   ANSWER 5 OF 80  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   2003:473269  CAPLUS
DN   139:47180
TI   Treatments for conditions caused by neurotoxic .beta.-amyloid peptide
     aggregates using compounds that decrease membrane depolarization or
     calcium influx caused by aggregated .beta.-amyloid
IN   Ingram, Vernon M.; Blanchard, Barbara J.; Stockwell, Brent R.
PA   USA
SO   U.S. Pat. Appl. Publ., 33 pp., Cont.-in-part of U.S. Ser. No. 706,574.
     CODEN: USXXCO
DT   Patent
LA   English
FAN.CNT 2
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ---------------     ----  --------      ---------------  --------
PI   US 2003114510       A1    20030619      US 2002-51663    20020118
     WO 2002035987       A2    20020510      WO 2001-US46957  20011105
     WO 2002035987       A3    20020801
         W:  CA, JP
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, TR
     EP 1341548          A2    20030910      EP 2001-990891   20011105
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI, CY, TR
     US 2003105152       A1    20030605      US 2002-143534   20020510
     WO 2003068147       A2    20030821      WO 2003-US1672   20030121
     WO 2003068147       A3    20040318
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
             NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
             ML, MR, NE, SN, TD, TG
PRAI US 2000-706574      A2    20001103
     WO 2001-US46957     W     20011105
     US 2002-51663       A2    20020118
     US 2002-143534      A     20020510


=> d his

     (FILE 'HOME' ENTERED AT 13:01:57 ON 06 MAY 2004)

     FILE 'BIOSIS, CAPLUS' ENTERED AT 13:02:04 ON 06 MAY 2004
L1        15418 S AMYLOID (3A) BETA (3A) (PROTEIN OR PEPTIDE)
L2          884 S L1 (10A) AGGREGAT?
L3           22 S L2 (10A) PREVENT?
L4         1009 S L1 (10A) INHIBIT?
L5           83 S L2 (10A) INHIBIT?
L6          102 S L3 OR L5
L7           80 DUP REM L6 (22 DUPLICATES REMOVED)
L8            0 S L2 (10A) SUPPRESS?

=> s l7 not antibod?
L9           73 L7 NOT ANTIBOD?

=> s l2 (5a) (prevent? or inhibit?)
L10          98 L2 (5A) (PREVENT? OR INHIBIT?)

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11          78 DUP REM L10 (20 DUPLICATES REMOVED)

=> s l11 not antibod?
L12          71 L11 NOT ANTIBOD?

> d his

     (FILE 'HOME' ENTERED AT 13:01:57 ON 06 MAY 2004)

     FILE 'BIOSIS, CAPLUS' ENTERED AT 13:02:04 ON 06 MAY 2004
L1        15418 S AMYLOID (3A) BETA (3A) (PROTEIN OR PEPTIDE)
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L2          884 S L1 (10A) AGGREGAT?
L3           22 S L2 (10A) PREVENT?
L4         1009 S L1 (10A) INHIBIT?
L5           83 S L2 (10A) INHIBIT?
L6          102 S L3 OR L5
L7           80 DUP REM L6 (22 DUPLICATES REMOVED)
L8            0 S L2 (10A) SUPPRESS?
L9           73 S L7 NOT ANTIBOD?
L10          98 S L2 (5A) (PREVENT? OR INHIBIT?)
L11          78 DUP REM L10 (20 DUPLICATES REMOVED)
L12          71 S L11 NOT ANTIBOD?

=> s l12 and pd<=1999
   1 FILES SEARCHED...
L13          24 L12 AND PD<=1999

=> dup rem l13
PROCESSING COMPLETED FOR L13
L14          24 DUP REM L13 (0 DUPLICATES REMOVED)

=> d l14 bib ab 1-24

L14  ANSWER 1 OF 24  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1999:148185  CAPLUS
DN   130:347290
TI   Recognition sequence design for peptidyl modulators of .beta.-amyloid
     aggregation and toxicity
AU   Pallitto, Monica M.; Ghanta, Jyothi; Heinzelman, Peter; Kiessling, Laura
     L.; Murphy, Regina M.
CS   Departments of Chemical Engineering and Chemistry, University of
     Wisconsin, Madison, WI, 53706, USA
SO   Biochemistry (  ***1999***  ), 38(12), 3570-3578
     CODEN: BICHAW; ISSN: 0006-2960
PB   American Chemical Society
DT   Journal
LA   English
AB   .beta.-Amyloid (A.beta.), the primary protein component of Alzheimer's
     plaques, is neurotoxic when aggregated into fibrils.  We have devised a
     modular strategy for generating compds. that inhibit A.beta. toxicity,
     based on linking a recognition element for A.beta. to a disrupting element
     designed to interfere with A.beta. aggregation.  One such compd., with the
     15-25 sequence of A.beta. as the recognition element and a lysine hexamer
     as the disrupting element, altered A.beta. aggregation kinetics and
     protected cells from A.beta. toxicity [Ghanta et al. (1996) J. Biol. Chem.
     271, 29525].  To optimize the recognition element, peptides of 4-8
     residues composed of overlapping sequences within the 15-25 domain were
     synthesized, along with hybrid compds. contg. those recognition sequences
     coupled to a lysine hexamer.  None of the recognition peptides altered
     A.beta. aggregation kinetics and only two, KLVFF and KLVF, had any
     protective effect against A.beta. toxicity.  The hybrid peptide
     KLVFF-KKKKKK dramatically altered A.beta. aggregation kinetics and
     aggregate morphol. and provided significantly improved protection against
     A.beta. toxicity compared to the recognition peptide alone.  In contrast,
     FAEDVG-KKKKKK possessed only modest inhibitory activity and had no marked
     effect on A.beta. aggregation.  The scrambled sequence VLFKF was nearly as
     effective a recognition domain as KLVFF, suggesting the hydrophobic
     characteristics of the recognition sequence are crit.  None of the
     cytoprotective peptides prevented A.beta. aggregation; rather, they
     increased aggregate size and altered aggregate morphol.  These results
     suggest that coupling recognition with disrupting elements is an effective
     generalizable strategy for the creation of A.beta. inhibitors.
     Significantly, prevention of A.beta. aggregation may not be required for
     prevention of toxicity.
RE.CNT  51    THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14  ANSWER 2 OF 24  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1998:163613  CAPLUS
DN   128:217639
TI   Preparation of D-amino acid peptides as modulators of .beta.-amyloid
     peptide aggregation
IN   Findeis, Mark A.; Gefter, Malcolm L.; Musso, Gary; Signer, Ethan R.;
     Wakefield, James; Molineaux, Susan; Chin, Joseph; Lee, Jung-Ja; Kelley,
     Michael; Komar-Panicucci, Sonja; Arico-Muendel, Christopher C.; Phillips,
     Kathryn; Hayward, Neil J.
PA   Praecis Pharmaceuticals Incorporated, USA
SO   PCT Int. Appl., 92 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 7
     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ------------------  ----  ------------  ---------------  --------
PI   WO 9808868          A1    19980305      WO 1997-US15166  19970827 <--
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK,
             EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT,
             RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN,
             YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,
             GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,
             GN, ML, MR, NE, SN, TD, TG
     US 6303567          B1    20011016      US 1996-703675   19960827
     AU 9742387          A1    19980319      AU 1997-42387    19970827 <--
     AU 741199           B2    20011122
     EP 929574           A1    19990721      EP 1997-940663   19970827 <--
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     JP 2001500852       T2    20010123      JP 1998-511914   19970827
     AU 759036           B2    20030403      AU 2000-35389    20000519
     AU 769915           B2    20040212      AU 2002-15539    20020211
PRAI US 1996-703675      A     19960827
     US 1997-897342      A     19970721
     US 1995-404831      A2    19950314
     US 1995-475579      A2    19950607
     US 1995-548998      B2    19951027
     AU 1996-52524       A3    19960314
     US 1996-616081      B2    19960314
     AU 1997-42387       A3    19970827
     WO 1997-US15166     W     19970827
OS   MARPAT 128:217639
AB   Compds. that modulate natural .beta.-amyloid peptide aggregation are
     provided.  The modulators of the invention comprise a peptide, preferably
     based on a .beta.-amyloid peptide, that is comprised entirely of D-amino
```

acids. Preferably, the peptide comprises 3-5 D-amino acid residues and includes at least two D-amino acid residues independently selected from the group consisting of D-Leu, D-Phe, and D-Val. In a particularly preferred embodiment, the peptide is a retro-inverso isomer of a .beta.-amyloid peptide, preferably a retro-inverso isomer of A.beta.17-21. In certain embodiments, the peptide is modified at the amino-terminus, the carboxy-terminus, or both. Preferred amino-terminal modifying groups include cyclic, heterocyclic, polycyclic and branched alkyl groups. Preferred carboxy-terminal modifying groups include an amide group, an alkylamide group, an arylamide group or a hydroxy group. Pharmaceutical compns. comprising the compds. of the invention, and diagnostic and treatment methods for amyloidogenic diseases using the compds. of the invention, are also disclosed. Thus, peptide H-D-Leu-D-Val-D-Phe-D-Phe-D-Ala-NH2, prepd. by std. solid-phase methods, ***inhibited*** ***aggregation*** of natural . ***beta*** .- ***amyloid*** ***peptide*** with a change in lag time of 3.5 at a concn. of 3 .mu.M.

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:25980 CAPLUS
DN 130:90531
TI Modulators of .beta.-amyloid peptide aggregation with modified .beta.-amyloid peptides
IN Findeis, Mark A.; Benjamin, Howard; Garnick, Marc B.; Gefter, Malcolm L.; Hundal, Arvind; Kasman, Laura; Musso, Gary; Signer, Ethan R.; Wakefield, James; Reed, Michael J.
PA Praecis Pharmaceuticals Incorporated, USA
SO U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 404,831.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | US 5854215 | A | 19981229 | US 1995-475579 | 19950607 | <-- |
| | US 5817626 | A | 19981006 | US 1995-404831 | 19950314 | <-- |
| | CA 2214247 | AA | 19960919 | CA 1996-2214247 | 19960314 | <-- |
| | WO 9628471 | A1 | 19960919 | WO 1996-US3492 | 19960314 | <-- |
| | W: AU, CA, JP | | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | | |
| | AU 9652524 | A1 | 19961002 | AU 1996-52524 | 19960314 | <-- |
| | EP 815134 | A1 | 19980107 | EP 1996-908805 | 19960314 | <-- |
| | EP 815134 | B1 | 20020605 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | | |
| | US 5854204 | A | 19981229 | US 1996-612785 | 19960314 | <-- |
| | JP 11514333 | T2 | 19991207 | JP 1996-527816 | 19960314 | <-- |
| | US 6319498 | B1 | 20011120 | US 1996-617267 | 19960314 | |
| | AT 218583 | E | 20020615 | AT 1996-908805 | 19960314 | |
| | ES 2175083 | T3 | 20021116 | ES 1996-908805 | 19960314 | |
| | US 6303567 | B1 | 20011016 | US 1996-703675 | 19960827 | |
| | AU 759036 | B2 | 20030403 | AU 2000-35389 | 20000519 | |
| | US 2002098173 | A1 | 20020725 | US 2001-972475 | 20011004 | |
| | AU 769915 | B2 | 20040212 | AU 2002-15539 | 20020211 | |
| | US 2004005307 | A1 | 20040108 | US 2003-463729 | 20030617 | |
| PRAI | US 1995-404831 | A2 | 19950314 | | | |
| | US 1995-475579 | A | 19950607 | | | |
| | US 1995-548998 | A | 19951027 | | | |
| | AU 1996-52524 | A3 | 19960314 | | | |
| | US 1996-616081 | B2 | 19960314 | | | |
| | US 1996-617267 | A1 | 19960314 | | | |
| | WO 1996-US3492 | W | 19960314 | | | |
| | AU 1997-42387 | A3 | 19970827 | | | |
| | US 2001-972475 | A1 | 20011004 | | | |

AB Compds. that act to modulate the aggregation of natural .beta. amyloid peptides (.beta.-AP) are disclosed. The .beta. amyloid modulators of the invention can promote .beta.-AP aggregation or, more preferably, can inhibit natural .beta.-AP aggregation. Furthermore, the modulators are capable of altering natural .beta.-AP aggregation when the natural .beta.-APs are in a molar excess amt. relative to the modulators. Pharmaceutical compns. comprising the compds. of the invention, and methods of altering natural .beta.-AP aggregation using the compds. of the invention, are also disclosed. Compds. of the invention include (Xaa)An (Xaa = .beta.-amyloid peptide; A = cyclic or heterocyclic modulating group). Amino-terminally biotinylated .beta.-AP1-40 ***inhibited*** ***aggregation*** of natural . ***beta*** .- ***amyloid*** ***peptide*** .

RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:588458 CAPLUS
DN 129:300702
TI Fibrillogenesis of .beta.-amyloid
AU Allsop, D.; Howlett, D.; Christie, G.; Karran, E.
CS Neurosciences Research, SmithKline Beecham Pharmaceuticals, Essex, CM19 5AW, UK
SO Biochemical Society Transactions ( ***1998*** ), 26(3), 459-463
CODEN: BCSTB5; ISSN: 0300-5127
PB Portland Press Ltd.
DT Journal; General Review
LA English
AB A review with 51 refs. that summarized briefly the progress that has been made towards identification of ***inhibitors*** of either . ***beta*** .- ***amyloid*** ***peptide*** (A. ***beta*** .) formation or ***aggregation*** . The formation and deposition in the brain of A.beta. are thought by many to be early and key pathol. events in the development of Alzheimer's disease. A straight forward means to prevent formation of A.beta. would be to inhibit the proteolytic enzymes (.beta.-secretase and .gamma.-secretase). Despite the fact that for the last 10 yr these two particular enzyme activities have been assocd. with the prodn. of A.beta., their identity still remains unknown. Given the lack of progress in the identification of proteinases involved in A.beta. prodn., an alternative strategy has been to test compds. for the ability to inhibit A.beta. formation by whole cells in culture. In this review we summarize compds. identified in this manner. In addn. to these compds. inhibiting A.beta. formation, we have also shown that they are reasonably potent inhibitors of the chymotrypsin-like activity of the proteasome (CLIP). In this review we also summarize a few of the compds. that inhibit aggregation of A.beta.. Despite the large amt. of effort in this area of research, it is clear that a no. of questions need to be answered before further genuine progress can be made.

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 5 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:381315 BIOSIS
DN PREV199800381315
TI The use a scintillation proximity assay to determine the interactions between beta- ***amyloid*** ***aggregation*** ***inhibitors*** and ***beta*** - ***amyloid*** ***peptide*** .
AU Swatton, J. E. [Reprint author]; Howlett, D. R.; Spitzfaden, C.
CS SmithKline Beecham Pharmaceutical, New Frontiers Science Park, Harlow, Essex CM19 5AW, UK
SO British Journal of Pharmacology, ( ***March, 1998*** ) Vol. 123, No. PROC. SUPPL., pp. 181P. print.
Meeting Info.: Meeting of the British Pharmacological Society held jointly with Dutch Pharmacological Society, The Belgian Society for Fundamental and Clinical Physiology and Pharmacology. Harrogate, England, UK. December 10-12, 1997. Belgian Society for Fundamental and Clinical Physiology and Pharmacology; British Pharmacological Society; Dutch Pharmacological Society.
CODEN: BJPCBM. ISSN: 0007-1188.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LA English
ED Entered STN: 2 Sep 1998
Last Updated on STN: 2 Sep 1998

L14 ANSWER 6 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:381159 BIOSIS
DN PREV199800381159
TI Identification of a novel class of ***inhibitor*** of ***beta*** - ***amyloid*** ***peptide*** ***aggregation*** .
AU Howlett, D. R. [Reprint author]; Markwell, R. E. [Reprint author]; Wood, S. J.
CS SmithKline Beecham Pharmaceuticals, New Frontiers Science Park, Harlow, Essex CM19 5AW, UK
SO British Journal of Pharmacology, ( ***March, 1998*** ) Vol. 123, No. PROC. SUPPL., pp. 25P. print.
Meeting Info.: Meeting of the British Pharmacological Society held jointly with Dutch Pharmacological Society, The Belgian Society for Fundamental and Clinical Physiology and Pharmacology. Harrogate, England, UK. December 10-12, 1997. Belgian Society for Fundamental and Clinical Physiology and Pharmacology; British Pharmacological Society; Dutch Pharmacological Society.
CODEN: BJPCBM. ISSN: 0007-1188.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 2 Sep 1998
Last Updated on STN: 2 Sep 1998

L14 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:723754 CAPLUS
DN 128:73815
TI Hemin and related porphyrins inhibit .beta.-amyloid aggregation
AU Howlett, David; Cutler, Paul; Heales, Simon; Camilleri, Patrick
CS Third Avenue, New Frontiers Science Park, SmithKline Beecham Pharmaceuticals, Harlow, Essex CM19 5AW, UK
SO FEBS Letters ( ***1997*** ), 417(2), 249-251
CODEN: FEBLAL; ISSN: 0014-5793
PB Elsevier
DT Journal
LA English
AB Porphyrins related to the naturally occurring pigment heme were found to effectively interfere with the aggregation of .beta.-amyloid peptides as detd. by an immunoassay configured for the detection of .beta.-amyloid oligomers. Oligomerization of .beta.-amyloid is believed to be a key event in the progression of Alzheimer's disease. Inhibition of this aggregation is thus an important strategy in combating this commonest form of senile dementia. Evidence was also generated for hemin and hematin mediated protection of cultured cells against the neurotoxic effects of .beta.-amyloid. These data are discussed with ref. to the known pathol. of Alzheimer's disease and the chem. of porphyrins.
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:748345 CAPLUS
DN 126:19332
TI Preparation of peptides as modulators of amyloid aggregation
IN Findeis, Mark A.; Benjamin, Howard; Garnick, Marc B.; Gefter, Malcolm L.; Hundal, Arvind; Kasman, Laura; Musso, Gary; Signer, Ethan R.; Wakefield, James; et al.
PA Pharmaceutical Peptides Incorporated, USA
SO PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 7

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 9628471 | A1 | 19960919 | WO 1996-US3492 | 19960314 | <-- |
| | W: AU, CA, JP | | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | | |
| | US 5817626 | A | 19981006 | US 1995-404831 | 19950314 | <-- |
| | US 5854215 | A | 19981229 | US 1995-475579 | 19950607 | <-- |
| | AU 9652524 | A1 | 19961002 | AU 1996-52524 | 19960314 | <-- |
| | EP 815134 | A1 | 19980107 | EP 1996-908805 | 19960314 | <-- |
| | EP 815134 | B1 | 20020605 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | | |
| | JP 11514333 | T2 | 19991207 | JP 1996-527816 | 19960314 | <-- |
| | AT 218583 | E | 20020615 | AT 1996-908805 | 19960314 | |
| | AU 759036 | B2 | 20030403 | AU 2000-35389 | 20000519 | |
| | AU 769915 | B2 | 20040212 | AU 2002-15539 | 20020211 | |
| PRAI | US 1995-404831 | A | 19950314 | | | |
| | US 1995-475579 | A | 19950607 | | | |
| | US 1995-548998 | A | 19951027 | | | |
| | AU 1996-52524 | A3 | 19960314 | | | |
| | WO 1996-US3492 | W | 19960314 | | | |
| | AU 1997-42387 | A3 | 19970827 | | | |

AB Compds. that modulate the aggregation of amyloidogenic proteins or peptides are disclosed. The modulators of the invention can promote amyloid aggregation or, more preferably, can inhibit natural amyloid

aggregation. In a preferred embodiment, the compds. modulate the aggregation of natural .beta. amyloid peptides (.beta.-AP). In a preferred embodiment, the .beta. amyloid modulator compds. of the invention are comprised of an A.beta. aggregation core domain and a modifying group coupled thereto such that the compd. alters the aggregation or inhibits the neurotoxicity of natural .beta. amyloid peptides when contacted with the peptides. Furthermore, the modulators are capable of altering natural .beta.-AP aggregation when the natural .beta.-APs are in a molar excess amt. relative to the modulators. Pharmaceutical compns. comprising the compds. of the invention, and diagnostic and treatment methods for amyloidogenic diseases using the compds. of the invention, are also disclosed. These peptide compds. are bound to natural .beta.-amyloid peptides to facilitate diagnosis of a .beta.-amyloidogenic disease, in particular Alzheimer's disease, and are useful for treating a disorder assocd. with amyloidosis including, e.g. familial amyloid polyneuropathy or cardiomyopathy, isolated cardiac amyloid, systemic senile amyloidosis, scrapie, bovine spongiform encephalopathy, and Creutzfeldt-Jakob disease. Thus, N-biotinyl-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV-OH (N-biotinyl-.beta.-AP1-40), prepd. by the solid phase synthesis using a N.alpha.-Fmoc-based protection strategy and Fmoc-Val-Wang resin, at 1% markedly ***inhibited*** ***aggregation*** of the natural . ***beta*** .- ***amyloid*** ***peptide*** (. ***beta*** .-AP1-40).

L14 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:367672 CAPLUS
DN 125:49343
TI Anthracyclinone derivatives, their preparation, and their use in treatment of amyloidosis
IN Suarato, Antonino; Lansen, Jacqueline; Caruso, Michele; Ballinari, Dario; Bandiera, Tiziano
PA Pharmacia S.P.A., Italy
SO PCT Int. Appl., 66 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 9604895 | A1 | 19960222 | WO 1995-EP2928 | 19950724 | <-- |
| | W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ, VN | | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | | |
| | CA 2173623 | AA | 19960222 | CA 1995-2173623 | 19950724 | <-- |
| | AU 9532209 | A1 | 19960307 | AU 1995-32209 | 19950724 | <-- |
| | AU 692293 | B2 | 19980604 | | | |
| | EP 722319 | A1 | 19960724 | EP 1995-928455 | 19950724 | <-- |
| | EP 722319 | B1 | 20020605 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE | | | | | |
| | CN 1131911 | A | 19960925 | CN 1995-190743 | 19950724 | <-- |
| | JP 09504307 | T2 | 19970428 | JP 1995-506948 | 19950724 | <-- |
| | HU 75336 | A2 | 19970528 | HU 1996-1217 | 19950724 | <-- |
| | RU 2167661 | C2 | 20010527 | RU 1996-108817 | 19950724 | |
| | PL 181564 | B1 | 20010831 | PL 1995-313822 | 19950724 | |
| | AT 218329 | E | 20020615 | AT 1995-928455 | 19950724 | |
| | PT 722319 | T | 20021031 | PT 1995-928455 | 19950724 | |
| | ES 2177656 | T3 | 20021216 | ES 1995-928455 | 19950724 | |
| | CZ 292700 | B6 | 20031112 | CZ 1996-1021 | 19950724 | |
| | IL 114833 | A1 | 20030731 | IL 1995-114833 | 19950804 | |
| | ZA 9506591 | A | 19960325 | ZA 1995-6591 | 19950807 | <-- |
| | NO 9601356 | A | 19960607 | NO 1996-1356 | 19960402 | <-- |
| | FI 9601507 | A | 19960607 | FI 1996-1507 | 19960403 | <-- |
| | US 5731313 | A | 19980324 | US 1996-615182 | 19960404 | <-- |
| | US 5998615 | A | 19991207 | US 1997-946578 | 19971007 | <-- |
| | US 6096888 | A | 20000801 | US 1999-395202 | 19990914 | |
| PRAI | GB 1994-16007 | A | 19940808 | | | |
| | WO 1995-EP2928 | W | 19950724 | | | |
| | US 1996-615182 | A3 | 19960404 | | | |
| | US 1997-946578 | A3 | 19971007 | | | |

OS CASREACT 125:49343; MARPAT 125:49343
AB The present invention provides the new use in the treatment of amyloidosis with anthracyclinone derivs. (Markush included). Some of the anthracyclinone derivs. are novel. Processes for their prepn. and pharmaceutical compns. contg. them are also described. Prepn. of e.g. 14-(N-morpholino)daunomycinone is described. The compds. of the invention inhibited aggregation of .beta.-amyloid fragment 25-35 and prion protein fragment 106-126.

L14 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:589752 CAPLUS
DN 125:212699
TI ***Amyloid*** . ***beta*** .- ***protein*** ***aggregation*** /deposition ***inhibitors*** containing quinones and Alzheimer's disease inhibitors
IN Tomyama, Takami; Suwa, Yorimasa; Endo, Noriaki
PA Teijin Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | JP 08193026 | A2 | 19960730 | JP 1995-3144 | 19950112 | <-- |
| PRAI | JP 1995-3144 | | 19950112 | | | |

AB The title inhibitors contain hydroquinone (I), p-benzoquinone (II), or 1,4-dihydroxynaphthalene (III) as an active ingredient. Prophylactic or therapeutic agents for Alzheimer's disease contg. I, II, or III are also claimed. I, II, and III dose-dependently ***inhibited*** in vitro ***aggregation*** of ***amyloid*** . ***beta*** .1-40 ***peptide*** . These quinones also completely inhibited neurotoxicity of amyloid .beta.1-40 peptide on PC12 cells.

L14 ANSWER 11 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:193166 BIOSIS
DN PREV199698749295
TI ***Inhibition*** of ***amyloid*** ***beta*** ***protein*** ***aggregation*** and neurotoxicity by rifampicin: Its possible function as a hydroxyl radical scavenger.
AU Tomiyama, Takami [Reprint author]; Shoji, Akira; Kataoka, Ken-Ichiro; Suwa, Yorimasa; Asano, Satoshi; Kaneko, Hideshi; Endo, Noriaki
CS Teijin Inst. Biomedical Res., 4-3-2 Asahigaska, Hino, Tokyo 191, Japan

SO Journal of Biological Chemistry, ( ***1996*** ) Vol. 271, No. 12, pp. 6839-6844.
CODEN: JBCHA3. ISSN: 0021-9258.
DT Article
LA English
ED Entered STN: 2 May 1996
Last Updated on STN: 10 Jun 1996
AB Aggregation of physiologically produced soluble amyloid beta protein (A-beta) to insoluble, neurotoxic fibrils is a crucial step in the pathogenesis of Alzheimer's disease. Aggregation studies with synthetic A-beta-1-40 peptide by the thioflavin T fluorescence assay and electron microscopy and cytotoxicity assays using rat pheochromocytoma PC12 cells showed that an antibiotic, rifampicin, and its derivatives, which possess a naphthohydroquinone or naphthoquinone structure, inhibited A-beta-1-40 aggregation and neurotoxicity in a concentration-dependent manner. Hydroquinone, p-benzoquinone, and 1,4-dihydroxynaphthalene, which represent partial structures of the aromatic chromophore of rifampicin derivatives, also inhibited A-beta-1-40 aggregation and neurotoxicity at comparable molar concentrations to rifampicin. Electron spin resonance spectrometric analysis revealed that the inhibitory activities of those agents correlated with their radical-scavenging ability on hydroxyl free radical, which was shown to be generated in cell-free incubation of A-beta-1-40 peptide. These results suggest that at least one mechanism of rifampicin-mediated inhibition of A-beta aggregation and neurotoxicity involves scavenging of free radicals and that rifampicin and/or appropriate hydroxyl radical scavengers may have therapeutic potential for Alzheimer's disease.

L14 ANSWER 12 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:527469 BIOSIS
DN PREV199699249825
TI Relationship between multifunctional protein "clusterin" and Alzheimer disease.
AU Choi-Miura, Nam-Ho; Oda, Tomichiro [Reprint author]
CS Neurosci. Res. Lab., Sankyo Co. Ltd., 1-2-58 Hiromachi, Shinagawa-ku, Tokyo 140, Japan
SO Neurobiology of Aging, ( ***1996*** ) Vol. 17, No. 5, pp. 717-722.
CODEN: NEAGDO. ISSN: 0197-4580.
DT Article
LA English
ED Entered STN: 22 Nov 1996
Last Updated on STN: 22 Nov 1996
AB In the Alzheimer disease (AD) brain, senile plaques contain several proteins and cytokines, such as beta-amyloid protein (A-beta), interleukin 1, transforming growth factor beta-1 (TGF beta-1), and apolipoprotein E, which may contribute to the process of neurodegeneration. Clusterin is also known to colocalize with AO deposits in neuritic plaques. Clusterin is a multifunctional protein that causes cell aggregation, binds to beta-endorphin, and inhibits the terminal complex formation of complement. Clusterin mRNA and protein are increased in the brains of AD patients. Cytokines such as TGF beta-1 and interleukin 1 enhance the expression of clusterin, which may link clusterin to inflammatory mechanisms in AD. beta-1, a 39-43 amino acid peptide, is a major component of the senile plaques that are characteristic of AD. Highly aggregated A-beta is implicated in neurodegeneration, e.g., A-beta aggregates spontaneously into fibrillar forms resembling those in plaques that, in experimental models, cause neurotoxicity through oxidative stress. Clusterin inhibits the aggregation of A-beta, which might be neuroprotective according to the aggregation-toxicity hypothesis of A-beta. However, clusterin enhanced the oxidative stress of A-beta. This may extend its neurotoxicity to locations distal from plaques wherever AP is present.

L14 ANSWER 13 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:321308 BIOSIS
DN PREV199699043664
TI Expression of apolipoprotein E ***inhibits*** ***aggregation*** of the C-terminal fragments of ***beta*** - ***amyloid*** precursor ***protein*** .
AU Ohman, Tauni; Dang, Nocthao; Leboeuf, Renee C.; Furlong, Clement E.; Fukuchi, Ken-Ichiro [Reprint author]
CS Dep. Comp. Med., Univ. Ala. Birm., 402 Volker Hall, 1670 University Blvd., Birmingham, AL 35294-0019, USA
SO Neuroscience Letters, ( ***1996*** ) Vol. 210, No. 1, pp. 65-68.
CODEN: NELED5. ISSN: 0304-3940.
DT Article
LA English
ED Entered STN: 11 Jul 1996
Last Updated on STN: 11 Jul 1996
AB An important role of apolipoprotein E in the amyloidogenesis of Alzheimer's disease is suggested by an accumulation of apolipoprotein E in beta-amyloid plaques and a genetic association between Alzheimer's disease and one of the allelic variants (APOE4) of apolipoprotein E. Overexpression of a C-terminal region of beta-amyloid precursor protein brings about aggregation of the C-terminal fragments in COS cells. This COS cell culture system was used to study effects of apolipoprotein E on aggregation of the C-terminal fragments. When both apolipoprotein E and the C-terminal fragments were overexpressed in COS cells, Western blot analyses revealed significant inhibition of aggregation of the C-terminal fragments. No significant differences between apolipoprotein E3 and E4 in the inhibitory activities were found by this method. Apolipoprotein E may inhibit formation of amyloid fibrils.

L14 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:613777 CAPLUS
DN 125:298604
TI Relative efficacies of amyloid .beta. peptide (A.beta.) binding proteins in A.beta. aggregation
AU Webster, Scott; Rogers, Joseph
CS L. J. Roberts Center Alzheimer's Research, Sun Health Research Institute, Sun City, AZ, USA
SO Journal of Neuroscience Research ( ***1996*** ), 46(1), 58-66
CODEN: JNREDK; ISSN: 0360-4012
PB Wiley-Liss
DT Journal
LA English
AB The aggregation of amyloid .beta. peptide (A.beta.) into its fibrillar, cross .beta.-pleated configuration is generally viewed as a crit. event in the pathophysiol. of Alzheimer's disease (AD). A diverse group of mols., the A.beta. binding proteins, has been evaluated for their effects of this process. However, most of these studies have used micromolar or greater reagent concns., and their different methods have not permitted quant. comparisons of the efficacy of different A.beta. binding proteins in augmenting or inhibiting aggregation. In the present work we have undertaken a coherent anal. using fluorimetry of thioflavin T-stained

exptl. solns. The complement protein C1q, serum amyloid P, and transthyretin significantly enhanced the formation of precipitable, cross .beta.-pleated aggregates in solns. of 800 nM A.beta.1-42. Under these same exptl. conditions, .alpha.1-antichymotrypsin had no significant effect on the aggregation process, and both the E3 and E4 isoforms of apolipoprotein E were significant inhibitors. There was a non-significant trend toward the E3 isoform exhibiting greater inhibition than the E4 isoform. Of the aggregation-facilitating mols., C1q was substantially and significantly the most potent.

L14 ANSWER 15 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:336322 BIOSIS
DN PREV199699058678
TI Alpha-1-Antichymotrypsin interaction with A-beta (1-40) inhibits fibril formation but does not affect the peptide toxicity.
AU Aksenova, Marina V. [Reprint author]; Aksenov, Micahel Y.; Butterfield, D. Allan; Carney, John M.
CS Dep. Pharmacol., Univ. Kentucky, 800 Rose St. MS 305, Lexington, KY 40536, USA
SO Neuroscience Letters, ( ***1996*** ) Vol. 211, No. 1, pp. 45-48.
CODEN: NELED5. ISSN: 0304-3940.
DT Article
LA English
ED Entered STN: 26 Jul 1996
Last Updated on STN: 27 Jul 1996
AB Recent studies have shown that senile plaque-associated or glial-derived proteins can prevent fibril formation of beta-amyloid peptide (A-beta), while increasing the neurotoxicity of the latter (in the case of glutamine synthetase, apolipoprotein J or thrombin). alpha-1-Antichymotrypsin (ACT) is a glial-derived protein associated with senile plaques in the Alzheimer's brain. In this report we show that ACT, a minor ***protein*** component of ***beta*** - ***amyloid*** deposits, is able to ***inhibit*** A-beta (1-40) ***aggregation*** into fibrils, but unable to modulate the toxicity of A-beta (1-40) in primary rat hippocampal cell cultures. These results are discussed in terms of the potential role of glial-derived proteins on A-beta aggregation and neurotoxicity.

L14 ANSWER 16 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1996:416459 BIOSIS
DN PREV199699138815
TI Beta-Amyloid protein and Alzheimer's disease.
AU Bao Xinmin
CS Dep. Neurobiol., Zhu Jiang Hosp., First Military Med. Univ., Guangzhou 510282, China
SO Chinese Medical Journal (English Edition), ( ***1996*** ) Vol. 109, No. 1, pp. 41-43.
CODEN: CMJODS. ISSN: 0366-6999.
DT Article
LA English
ED Entered STN: 10 Sep 1996
Last Updated on STN: 11 Oct 1996

L14 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:97266 CAPLUS
DN 124:135727
TI Method and use of agents to inhibit protein polymerization, methods of identifying these agents, and use of the agents as antithrombotics and for the treatment of Alzheimer's disease
IN Bjornsson, Thorir D.
PA Thomas Jefferson University, USA
SO PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9531192 | A1 | 19951123 | WO 1995-US6383 | 19950515 <-- |
| W: CA, JP, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| PRAI US 1994-243114 | | 19940516 | | |

OS MARPAT 124:135727
AB A method of inhibiting polymn. of target proteins by administration of compds. capable of inhibiting aggregation and subsequent transglutaminase-induced crosslinking of adjacent peptides of the target proteins is provided. These compds. are useful as antithrombotic agents and in the treatment of Alzheimer's disease. A method of screening and identifying compds. capable of ***inhibiting*** ***aggregation*** and subsequent transglutaminase-induced crosslinking of ***amyloid*** . ***beta*** .- ***peptide*** is also provided.

L14 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1995:733344 CAPLUS
DN 123:107277
TI Method of ***preventing*** ***aggregation*** of ***amyloid*** . ***beta*** .- ***protein***
IN Goldgaber, Dimitry Y.; Schwarzman, Alexander L.; Eisenberg-Grunberg, Moises
PA Research Foundation of State University of New York, USA
SO PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 9512815 | A1 | 19950511 | WO 1994-US12584 | 19941103 <-- |
| W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN | | | | |
| RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| US 5744368 | A | 19980428 | US 1993-148117 | 19931104 <-- |
| AU 9481310 | A1 | 19950523 | AU 1994-81310 | 19941103 <-- |
| PRAI US 1993-148117 | | 19931104 | | |
| WO 1994-US12584 | | 19941103 | | |

AB This invention is directed to methods and compns. for ***preventing*** ***aggregation*** of ***amyloid*** . ***beta*** .- ***protein*** (. ***beta*** .-AP) ***aggregation*** . Aggregation of amyloid .beta.-protein is assocd. with the deposition of amyloid in the brain. Amyloid .beta.-protein-binding compds. such as transthyretin are described

which form complexes with .beta.AP and prevent formation of amyloid. This invention also identifies the serine 6 mutation in the TTR gene as predictive of person at risk for developing .beta.AP assocd. amyloidosis.

L14 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:111696 CAPLUS
DN 124:279195
TI ***Amyloid*** . ***beta*** .- ***protein*** ***aggregation*** /deposition ***inhibitors*** containing rifamycin derivatives
IN Kataoka, Kenichiro; Tomyama, Takami; Morita, Takuya; Endo, Noriaki
PA Teijin Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI JP 07309760 | A2 | 19951128 | JP 1994-102554 | 19940517 <-- |
| PRAI JP 1994-102554 | | 19940517 | | |

OS MARPAT 124:279195
AB ***Amyloid*** . ***beta*** .- ***protein*** ***aggregation*** and/or deposition ***inhibitors*** contg. rifamycin derivs. I [XX, YY, ZZ = CH2CH2, CH:CH; R1-2 = H, C2-7 acyl; R3-7 = H, C1-6 alkyl which may be substituted with halo, NH2, NO2, cyano, CO2H, OH, C1-6 monoalkylamino, C2-12 dialkylamino, C1-6 alkyl, C1-6 alkoxy, C2-7 acyl, C2-7 acyloxy, C2-7 alkyloxycarbonyl, C2-7 acylamino; X in the N-contg. ring = N, CH; n = 1-3], II (R8 = H, C2-7 acyl), or III (R9 = H, C2-7 acyl) or their pharmaceutically acceptable salts as active ingredients are claimed. 8-O-pivaloyl-3-[4-(2,4,6-trimethylbenzyl)piperazin-1-yl]rifamycin SV, prepd. from rifamycin S and 1-benzylpiperazine with 4 steps, significantly ***inhibited*** in vitro ***aggregation*** of .beta.1-35 ***peptide*** of ***amyloid*** . ***beta*** .- ***protein*** .

L14 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:130857 CAPLUS
DN 124:165268
TI ***Inhibitors*** for ***amyloid*** . ***beta*** . ***protein*** ***aggregation*** and deposit.
IN Kataoka, Kenichiro; Tomyama, Takami; Morita, Takuya; Endo, Noriaki
PA Teijin Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI JP 07309759 | A2 | 19951128 | JP 1994-102553 | 19940517 <-- |
| PRAI JP 1994-102553 | | 19940517 | | |

OS MARPAT 124:165268
AB The title inhibitors (I; -X-X-, -Y-Y-, and -Z-Z- are ethylene or vinylene group; R1 = H or C2- C7 acyl group; R2 and R3 bound together or = H; R4 = H or acetyl group; R5 = H or C1-C6 alkyl group; R6, R7 = H or C1-C6 alkyl group; R8 branched-chain or cyclic fatty hydrocarbon group, or heteroallyl group contg. 1-3 no. of hetero atoms O, S, and N in the ring; n = 1-3) were prepd. from rifamycin derivs. I and their pharmaceutical salts can ***inhibit*** ***amyloid*** . ***beta*** . ***protein*** ***aggregation*** and deposit and thus, useful for treatment of Alzheimer's disease.

L14 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:83075 CAPLUS
DN 124:135720
TI ***Amyloid*** . ***beta*** . ***protein*** ***aggregation*** and deposition ***inhibitors*** containing rifamycin derivatives
IN Kataoka, Kenichiro; Tomyama, Takami; Morita, Takuya; Endo, Noriaki
PA Teijin Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI JP 07304675 | A2 | 19951121 | JP 1994-96383 | 19940510 <-- |
| PRAI JP 1994-96383 | | 19940510 | | |

OS MARPAT 124:135720
AB The inhibitors contain rifamycin derivs. I (R1-2 = H, C2-7 acyl; R3-7 = H, C1-6 alkyl; n = 1-2) or their pharmaceutically acceptable salts as active ingredients. The inhibitors suppress neurocytotoxicity of amyloid .beta. proteins and are useful for prevention and treatment of Alzheimer's disease. 3-(4-Benzylhomopiperazin-1-yl)rifamycin SV (prepd. from rifamycin S and 4-benzylhomopiperazine) ***inhibited*** in vitro ***aggregation*** of ***amyloid*** . ***beta*** . ***protein*** partial ***peptide*** .beta.1-35.

L14 ANSWER 22 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1995:425746 BIOSIS
DN PREV199598440046
TI Mechanism of ***prevention*** of ***amyloid*** ***beta*** ***protein*** ***aggregation*** by transthyretin and apolipoprotein E.
AU Schwarzman, A. L. [Reprint author]; Vitek, M. P.; Tsiper, M. [Reprint author]; Wente, H. [Reprint author]; Wang, A. [Reprint author]; Francis, A. [Reprint author]; Goldgaber, D. [Reprint author]
CS Dep. Psychiatry Behavioral Sci. Sch. Med., State Univ. New York, Stony Brook, NY 11794, USA
SO Society for Neuroscience Abstracts, ( ***1995*** ) Vol. 21, No. 1-3, pp. 6.
Meeting Info.: 25th Annual Meeting of the Society for Neuroscience. San Diego, California, USA. November 11-16, 1995.
ISSN: 0190-5295.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Slide)
LA English
ED Entered STN: 3 Oct 1995
Last Updated on STN: 1 Nov 1995

L14 ANSWER 23 OF 24 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1994:537213 BIOSIS
DN PREV199497550213
TI Rifampicin ***prevents*** the ***aggregation*** and neurotoxicity

of ***amyloid*** ***beta*** ***protein*** in vitro.

AU Tomiyama, Takami [Reprint author]; Asano, Satoshi [Reprint author]; Suwa, Yorimasa [Reprint author]; Morita, Takuya [Reprint author]; Kataoka, Ken-Ichiro [Reprint author]; Mori, Hiroshi; Endo, Noriaki [Reprint author]

CS Teijin Inst. Biomed. Res., 4-3-2 Asahigaoka, Hino, Tokyo 191, Japan

SO Biochemical and Biophysical Research Communications, ( ***1994*** ) Vol. 204, No. 1, pp. 76-83.
CODEN: BBRCA9. ISSN: 0006-291X.

DT Article

LA English

ED Entered STN: 15 Dec 1994
Last Updated on STN: 12 Jan 1995

AB The aggregation and cerebral deposition of amyloid beta protein (A-beta), which is a major component of senile plaques in Alzheimer's disease (AD) brains, is believed to be involved in the pathogenesis of AD. Inhibition of A-beta aggregation would seem to be a promising strategy for the treatment of AD. Here, we show that rifampicin, which is an antibiotic widely used in the treatment of tuberculosis and leprosy, inhibited the aggregation and fibril formation of synthetic A-beta-1-40 peptide in a dose-dependent manner at reasonable concentrations. Furthermore, rifampicin was found to prevent A-beta-140-induced neurotoxicity on rat pheochromocytoma PC12 cells Rifampicin may have therapeutic potential as an agent for inhibiting the initial step of amyloid formation in AD.

L14 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1993:229358 CAPLUS

DN 118:229358

TI Labeled .beta.-amyloid peptide and Alzheimer's disease detection

IN Maggio, John Edward; Mantyh, Patrick William

PA University of Minnesota, USA; Harvard College

SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|---|
| PI | WO 9304194 | A1 | 19930304 | WO 1992-US6700 | 19920810 | <-- |
| | W: CA, JP | | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE | | | | | |
| | US 5434050 | A | 19950718 | US 1991-744767 | 19910813 | <-- |
| | EP 599979 | A1 | 19940608 | EP 1992-918394 | 19920810 | <-- |
| | R: CH, DE, FR, GB, IT, LI | | | | | |
| | JP 06510761 | T2 | 19941201 | JP 1992-504386 | 19920810 | <-- |
| | US 5837473 | A | 19981117 | US 1995-433734 | 19950503 | <-- |
| PRAI | US 1991-744767 | | 19910813 | | | |
| | WO 1992-US6700 | | 19920810 | | | |

AB A labeled .beta.-amyloid peptide (or active fragment) is disclosed, as are a pharmaceutical compn. contg. the peptide or fragment, a labeling method, and methods using the peptide or fragment for diagnosing or monitoring Alzheimer's disease in a patient. Thus, .beta.-amyloid peptide(1-40) (sequence included) was radiolabeled with 125I for use as a diagnostic agent. In tissue autoradiog. studies, there was essentially no displaceable binding of the radioligand to normal tissue homogenates or sections, but there was significant displaceable binding to Alzheimer's disease-derived tissue. The binding to Alzheimer's disease-derived tissue was not saturable, suggesting that most of the sites to which the radioligand bound were not receptors in the usual sense; rather, the binding characteristics were consistent with the growth of Alzheimer's disease amyloid plaques by deposition of .beta.-amyloid peptide from soln. In vitro evaluation of agents for ***inhibiting*** or enhancing ***aggregation*** of . ***beta*** .- ***amyloid*** ***peptide*** or for dispersing ***aggregates*** of . ***beta*** .- ***amyloid*** ***peptide*** in the absence of Alzheimer's disease plaques, in vitro evaluation of agents for inhibiting or enhancing plaque growth, and localization of radioiodinated 40-mer peptide binding sites in Alzheimer's disease brain tissue are also described.

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=> d his

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L3           22 S L2 (10A) PREVENT?
L4         1009 S L1 (10A) INHIBIT?
L5           83 S L2 (10A) INHIBIT?
L6          102 S L3 OR L5
L7           80 DUP REM L6 (22 DUPLICATES REMOVED)
L8            0 S L2 (10A) SUPPRESS?
L9           73 S L7 NOT ANTIBOD?
L10          98 S L2 (5A) (PREVENT? OR INHIBIT?)
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L14          24 DUP REM L13 (0 DUPLICATES REMOVED)

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